

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

Claims 1 to 37. (Canceled).

38. (Currently Amended) A reflection graduation, comprising:
a silicon substrate;

first subsections disposed on the substrate, each of the first subsections having etched oblique surfaces, the surfaces positioned such that light beams directed incident to the surfaces cause no retroreflection; and

second subsections having relatively higher reflecting properties as compared to the first subsections;

wherein the first subsections and the second subsections are alternatively disposed on the substrate in a first direction;

wherein each first subsection includes at least one secondary V-shaped groove that extends in a second direction, perpendicular to the first direction, along nearly an entire length of an edge of each first subsection; and

wherein the second subsections are substantially planar.

39. (Previously Presented) The reflection graduation as recited in claim 38, wherein the oblique surfaces include a plurality of adjacent V-shaped grooves disposed in ~~[[a]]~~ the second direction ~~perpendicular to the first direction~~, each groove including a first surface and a second surface.

40. (Previously Presented) The reflection graduation as recited in claim 39, wherein the grooves are regularly spaced in the first subsections.

41. (Previously Presented) The reflection graduation as recited in claim 39, wherein the first surface and the second surface of each groove are oriented at an angle of approximately 72° to one another.

42. (Previously Presented) The reflection graduation as recited in claim 38, wherein the silicon substrate includes monocrystalline silicon, and wherein the first direction corresponds to a direction of the monocrystalline silicon.

43. (Previously Presented) The reflection graduation as recited in claim 38, wherein a width in the first direction of each first subsection is equivalent to a width in the first direction of each second subsection.

Claim 44. (Canceled).

45. (Currently Amended) ~~[[The]]~~ A reflection graduation as recited in claim 38, comprising:

a silicon substrate;

first subsections disposed on the substrate, each of the first subsections having etched oblique surfaces, the surfaces positioned such that light beams directed incident to the surfaces cause no retroreflection; and

second subsections having relatively higher reflecting properties as compared to the first subsections;

wherein the first subsections and the second subsections are alternatively disposed on the substrate in a first direction; and

wherein the second subsections include a coating of highly reflective material.

46. (Previously Presented) The reflection graduation as recited in claim 38, wherein the oblique surfaces form pyramid-shaped depressions.

47. (Previously Presented) The reflection graduation as recited in claim 38, wherein the oblique surfaces are positioned so that a light beam directed thereon from a direction of incidence reflects from the oblique surfaces in a direction that coincides with a direction other than the direction of incidence.

48. (Currently Amended) A method for manufacturing a reflection graduation, comprising the steps of:

providing a silicon substrate; and

forming first subsections and second subsections that alternatively extend in a first direction on the silicon substrate, the first subsections and the second subsections having different optical reflecting properties[[:]]

wherein, in the first subsections, a plurality of oblique surfaces ~~[[is]]~~ being produced by deep etching, the oblique surfaces positioned such that no retroreflection of the light beams incident thereto results; and
providing a coating of highly reflective material on the second subsections.

49. (Previously Presented) The method as recited in claim 48, further comprising the step of forming a plurality of V-shaped grooves in a second direction perpendicular to the first direction.

50. (Previously Presented) The method as recited in claim 49, wherein the forming step includes the substep of selectively etching oblique surfaces into the silicon substrate using an etching solution in a region of the first subsections.

51. (Previously Presented) The method as recited in claim 50, further comprising the step of covering at least the second subsections with an etching mask on the silicon surface prior to the forming step.

52. (Previously Presented) The method as recited in claim 51, wherein the etching mask includes chromium.

53. (Previously Presented) The method as recited in claim 50, wherein the etching solution includes potassium hydroxide in combination with isopropanol.

54. (Previously Presented) The method as recited in claim 50, wherein the etching step continues until each of the V-shaped grooves is completely formed.

Claim 55. (Canceled).

56. (Previously Presented) The method as recited in claim 48, further comprising the step of etching a plurality of pyramid-shaped depressions into the silicon substrate in the first subsections.

57. (New) The reflection graduation as recited in claim 45, wherein the oblique surfaces include a plurality of adjacent V-shaped grooves disposed in a second direction perpendicular to the first direction, each groove including a first surface and a second surface.

58. (New) The reflection graduation as recited in claim 57, wherein the grooves are regularly spaced in the first subsections.

59. (New) The reflection graduation as recited in claim 57, wherein the first surface and the second surface of each groove are oriented at an angle of approximately 72° to one another.

60. (New) The reflection graduation as recited in claim 45, wherein the silicon substrate includes monocrystalline silicon, and wherein the first direction corresponds to a direction of the monocrystalline silicon.

61. (New) The reflection graduation as recited in claim 45, wherein a width in the first direction of each first subsection is equivalent to a width in the first direction of each second subsection.

62. (New) The reflection graduation as recited in claim 57, wherein each first subsection includes at least one secondary V-shaped groove that extends in the second direction along nearly an entire length of an edge of each first subsection.

63. (New) The reflection graduation as recited in claim 45, wherein the oblique surfaces form pyramid-shaped depressions.

64. (New) The reflection graduation as recited in claim 45, wherein the oblique surfaces are positioned so that a light beam directed thereon from a direction of incidence reflects from the oblique surfaces in a direction that coincides with a direction other than the direction of incidence.

65. (New) The reflection graduation as recited in claim 38, wherein the second subsections include a coating of highly reflective material.

66. (New) The reflection graduation as recited in claim 38, wherein the second subsections do not include oblique subsections.

67. (New) A method for manufacturing a reflection graduation, comprising the steps of:

providing a silicon substrate; and

forming first subsections and second subsections that alternatively extend in a first direction on the silicon substrate, the first subsections and the second subsections having different optical reflecting properties;

wherein, in the first subsections, a plurality of oblique surfaces is produced by deep etching, the oblique surfaces positioned such that no retroreflection of the light beams incident thereto results;

wherein each first subsection includes at least one secondary V-shaped groove that extends in a second direction, perpendicular to the first direction, along nearly an entire length of an edge of each first subsection; and

wherein the second subsections are substantially planar.

68. (New) The method as recited in claim 67, further comprising the step of forming a plurality of V-shaped grooves in the second direction perpendicular to the first direction.

69. (New) The method as recited in claim 68, wherein the forming step includes the substep of selectively etching oblique surfaces into the silicon substrate using an etching solution in a region of the first subsections.

70. (New) The method as recited in claim 69, further comprising the step of covering at least the second subsections with an etching mask on the silicon surface prior to the forming step.

71. (New) The method as recited in claim 70, wherein the etching mask includes chromium.

72. (New) The method as recited in claim 69, wherein the etching solution includes potassium hydroxide in combination with isopropanol.

73. (New) The method as recited in claim 69, wherein the etching step continues until each of the V-shaped grooves is completely formed.

74. (New) The method as recited in claim 70, further comprising the step of removing the etching mask after completion of the forming step.

75. (New) The method as recited in claim 67, further comprising the step of etching a plurality of pyramid-shaped depressions into the silicon substrate in the first subsections.